REMARKS

This Amendment Under 37 C.F.R. §1.116 is in response to the final Office Action mailed May 1, 2008. The Commissioner is authorized to charge any required fees to the undersigned's Deposit Account No. 50-3159.

In the final Office Action, claims 1-12, 63-65, 78-92, 108 and 1-9, were rejected under 35 U.S.C. §103(a) as being unpatentable over Mockapetris in view of Nguyen. Reconsideration and withdrawal of these rejections are hereby respectfully requested.

Independent claim 1 and its dependent claims, independent claim 108

Claim 1, as amended recites:

> at least one gaming machine coupled to the at least two central servers through the communication network in a client-server configuration in which each of the at least one gaming machine is a client to the at least two central servers, each of the at least one gaming machine being configured to play at least one game and to carry out a game transaction for each game played and to commit each game transaction to each of the at least two central servers by sending a separate transaction packet to each of the at least two central servers, each of the separate transaction packets sent to each of the at least two central servers including an identical inbound game payload wherein each of the at least two central servers, upon receipt of the inbound game payload, are configured to return ~~an~~ a single outbound game payload to the gaming machine having sent the transaction packet, the outbound game payload enabling the gaming machine having sent the transaction packet to complete the game transaction and wherein the at least one gaming machine is configured such that a first arriving outbound payload received by the at least one gaming machine is effective to complete the game transaction, irrespective of when and if a second later arriving outbound payload is received by the at least one gaming machine.

On page 4 of the final Office Action, the Examiner states: "*Mockapetris/Nguyen do not specifically disclose the at least one gaming machine is configured such that a first arriving outbound payload received by the at least one gaming machine is effective to complete the game transaction, irrespective of when and if a second later arriving outbound payload is received by the at least one gaming machine,*" and cites Mockapetris for his teaching of multicast implementations and reducing excessive costs in terms of processing events in the receivers of

the distribution through measures ... **"to rapidly discard irrelevant or duplication transmissions."**

However, Mockapetris teaches to multicast by sending several copies of the information to be multicast to the target hosts, followed by the target hosts processing and discarding any duplicates received:

Multicast implementations

Reliable multicast transmission can be decomposed into separate actions:

    1. Assignment of a multicast set address.

    2. A distribution transmission, and possibly retransmissions, that place the information to be multicast onto the medium. .

    3. Reception of the distribution transmission in the target hosts, followed by processing to discard duplicates and to route the information to target processes.

    4. Generation and transmission of acknowledgments from receivers to the sending host.

    5. Acknowledgment processing at the sending host.

Diagrammatically, Mockapetris looks like this:
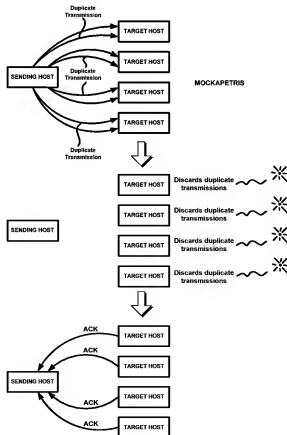
The claimed embodiments, however, do not send duplicate transmissions to a target host. In the claimed embodiment, <u>a</u> separate transaction packet is sent to each of the at least two central servers:

> ... each of the at least one gaming machine being configured to play at least one game and to carry out a game transaction for each game played and to commit each game transaction to each of the at least two central servers by sending a separate transaction packet to each of the at least two central servers ...

and the central servers respond by sending back a single outbound game payload that enables the gaming machine to complete the transaction:

> ...each of the at least two central servers, upon receipt of the inbound game payload, are configured to return ~~an~~ <u>a single</u> outbound game payload to the gaming machine having sent the transaction packet, the outbound game payload enabling the gaming machine having sent the transaction packet to complete the game transaction ...

Note that the payload enables the gaming machine to complete the transaction – it is not a simple acknowledgment as in Mockapetris. Diagrammatically, claim 1 looks like this:
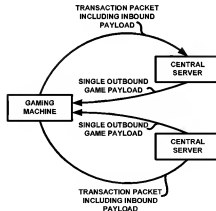
That Mockapetris teaches to broadcast by sending duplicate transmissions to each target host does not, whether considered alone or in combination with Nguyen, teach or suggest a gaming machine receiving a single outbound game payload from each central server. Indeed, at no point does the claim recite that either the gaming machine or the central servers send

duplicate inbound or outbound payloads to each other. As shown above, although the gaming machine receives two outbound payloads, <u>each is from a separate central server</u>, with each central server only sending a single outbound payload to the gaming machine. This ensures that the gaming machine will receive its outbound payload (and thus be able to complete the pending transaction), even when one of the central servers is down. That Mockapetris teaches sending duplicate messages <u>to</u> target hosts and teaches that the target hosts discard any duplicate messages received is not believed to teach or to suggest, whether considered singly or in combination with Nguyen, the claimed subject matter.

Indeed, the broadcast methods disclosed by Mockapetris fail to teach or to suggest the claimed embodiments even when the acknowledgments (ACK) of Mockapetris are replaced with the "cashless authorizations" of Nguyen, as suggested in the middle of page 5 of the outstanding Office Action. The term "cashless authorization" appears only twice in Nguyen, in paragraphs [0049] and [0084], is never defined and is listed only as another type of information that may be stored and mirrored in the DCU. Nevertheless, even if Mockapetris' ACKs were replaced with Nguyen's "cashless authorizations," the claimed embodiment would not be taught or suggested by the applied combination.

Indeed, claim 1 continues:

> ...and wherein the at least one gaming machine is configured such that a first arriving outbound payload received by the at least one gaming machine is effective to complete the game transaction, irrespective of when and if a second later arriving outbound payload is received by the at least one gaming machine.

The final Office Action states that the applied combination teaches the claimed embodiment because:

> it would have been obvious to one of ordinary skill in the art at the time of the invention to utilize only the first arriving inbound payload to

> complete the transaction, irrespective of when and if a second later arriving
> outbound payload is received by the at least one gaming machine, as it
> would only require a single authorization to complete the cashless gaming
> transaction and Mockapetris specifically discloses discarding duplication
> transmissions in order to avoid excessive processing costs

Mockapetris teaches that it is the sender (the **Sending Host** in the diagram above) that sends the duplicate transmissions. The Examiner then states that Mockapetris teaches that this same sending host (in the claimed embodiment, the gaming machine) that discards the duplicate transmissions. There are three problems here: 1) the claims do <u>not</u> recite that the gaming machines send duplicate inbound payloads (as would be the case if Mockapetris' teachings were followed); and 2) the claims do <u>not</u> recite any gaming machine discarding any duplicate outbound payloads. This is because no duplicate payloads are either sent or received in the claimed embodiments. In the claimed embodiments, as shown in the diagram above, each central server returns a single outbound payload to the gaming machine. These are not duplicates, as each has been sent by a separate central server, as the claims make clear. This is unlike Mockapetris, in which a single sending hosts does, in fact, send multiple copies (duplicates) of the transmission to a same target host. No gaming machine, as claimed, sends more than one inbound payload to a same central server, and no central server, as claimed, sends more than one outbound payload to a same gaming machine. So, in the claimed embodiments, there are no duplicate transmissions, a la Mockapetris.

The claimed embodiment, as amended, requires that "<u>**a first arriving outbound payload received by the at least one gaming machine is effective to complete the game transaction, irrespective of when and if a second later arriving outbound payload is received by the at least one gaming machine**</u>." Mockapetris does not teach or suggest that the first-of-many arriving acknowledgments has any special significance or is effective to complete a transaction, as claimed. Indeed, Mockapetris does not teach or suggest that the first arriving ACK signal is

treated any differently from any of the other ACK signals. To the contrary, in Mockapetris, <u>each ACK signal is equally important, as each must be received by the sending host so the sending hosts will know that each of the target hosts to which it has just broadcast (the duplicate transmission) has well received the transmission</u>. In the claimed embodiment, the gaming machine is unconcerned whether each central server has received the inbound payload, only that <u>one</u> of them has, as it only requires one outbound payload (the first one to arrive) to complete the transaction. Indeed, in the claimed embodiments, if one of the central servers has not received an inbound payload from a gaming machine, they can sync among themselves to bring the non-receiving central server up-to-date, as claimed elsewhere, as claimed in claims 79 and 109, discussed below.

For the foregoing reasons, therefore, the Mockapetris-Nguyen combination would not have taught or suggested the claimed embodiments to one of ordinary skill at the time of the invention. Reconsideration and withdrawal of the 35 U.S.C. §103(a) rejections applied to the claim 1 and its dependent claims is, therefore, respectfully requested.

The arguments above are equally applicable to method claim 108. As such, they are incorporated herein by reference, as if repeated here in full. Reconsideration and withdrawal of the 35 U.S.C. §103(a) rejection applied to claim 108 is, therefore, respectfully requested.

Independent Claim 79 and Its Dependent Claims, Independent Claim 109

Independent claim 79 recites:

> 79. (Previously Presented) An online gaming system, comprising:
> a communication network;
> at least two central servers, each of the at least two servers being coupled to the network, each of the at least two central servers including a synchronization engine and
> at least one gaming machine coupled to the communication network, each of the at least one gaming machine being configured to play at least

one game and to carry out a game transaction for each game played and to commit each game transaction to each of the at least two central servers by sending a separate transaction packet to each of the at least two central servers, each of the separate transaction packets sent to each of the at least two central servers including an identical inbound game payload, wherein each of the two central servers are configured such that any transaction that is not acknowledged by a non-responding one of the at least two central servers is sent directly from the synchronization engine of a responding one of the at least two central servers to the synchronization engine of the non-responding central server.

The Office states (at page 13) that "¶0083 of Nguyen discloses an embodiment of the gaming network featuring a plurality of central servers wherein said plurality of central servers "may also communication with one another in a peer-to-peer network (see FIG. 6)."

It is respectfully submitted that this is a misquote of the original Nguyen and is taken out of context. Nguyen **never** teaches that that the plurality of central (host, in Nguyen's language) servers communicate with one another. A full quotation of paragraph [0083] leads to a fuller understanding of the intended meaning:

[0083] FIG. 5 is a flow chart of a method of providing network mediation using an enhanced DCU according to one embodiment of the present invention. According to the method 500, at step 502 the enhanced DCU monitors communications between a plurality of gaming machines on the network and one or more host servers. A plurality of enhanced DCUs may perform this task. Therefore, the enhanced DCUs may also communicate with one another in a peer-to-peer network (see FIG. 6). (Underlining for emphasis only)

Careful inspection of this paragraph reveals that a) the enhanced DCU monitors communications between a plurality of gaming machines on the network and one or more host servers; b) a plurality of DCU may perform this monitoring function; and c) the (plurality of) enhanced DCUs may perform this task in a peer-to-peer network – NOT the host servers. Therefore, it is the DCUs that may communicate with one another, not host servers. The Office, by quoting this passage of Nguyen mid-sentence, gave the impression that Nguyen taught that the host servers communicated with one another, whereas Nguyen teaches nothing of the sort.

In the paragraph bridging pages 13 and 14 of the final Office Action, the Office states that:

> Additionally, applicant's arguments that the store-and-forward functionality is
> invoked only when the communication paths between the DCU and the host server is
> severed or otherwise available, and therefore does not meet the limitation of claim 79
> reciting each of the two central servers are configured such that any transaction that is
> not acknowledged by a non-responding one of the at least two central servers is sent
> directly from the synchronization engine of a responding one of the at least two central
> servers to the synchronization engine of the non-responding central server "would not
> be possible if the communication paths therebetween were severed or unavailable"
> (Remarks, P. 30). However, applicant's specification recites a similar process on P. 37,
> lines 9-13, wherein "Fig. 15 illustrates ... how the two central servers may be
> resynchronized following a failure in the transaction path. The synchronization engines
> use the synchronization log established by the terminal that notes the missing server
> acknowledgements". P. 38, lines 3-15 further details the synchronization process and
> specifically cites instances wherein should server X be unreachable by a terminal,
> server Y will forward all transactional information from the terminal that server X has not
> received because of failure. Therefore, applicant's arguments that the ability to "store
> the data received from the gaming machines... until such time as a transmission path to
> the host server is restored and data can be transmitted" as taught by Nguyen do not
> sufficiently meet the limitations of the claim are not persuasive, as this is the procedure
> of synchronization taught applicant's specification as originally filed. See ¶0027-
> 0029,0050 and 0082-0086 of Nguyen.

Apparently, the Office is using the applicant's own specification to rebut a statement regarding the applied reference. This is, of course, impermissible. The present specification provides both antecedent and enabling support for the pending claims only and cannot be used to somehow re-interpret an applied reference. Nguyen stands on its own, and is unaffected by embodiments disclosed in the Applicant's own specification.

The applied combination of references does not teach or suggest the claimed embodiment. Indeed, Mockapetris teach the broadcasting of messages through various methods, and <u>does not teach or suggest maintaining synchronization between central servers</u>. Nguyen teaches that the DCU can act as a store-and-forward unit when the first and second communication paths 326, 340 are unavailable, as taught in paragraphs [0043] and [0089] (cited in outstanding Office Action). Nguyen also teaches that the DCU may form an integral part of the gaming machine. However, the Examiner is respectfully requested to examine amended claim 79 and note that it is the (at least) two **central servers** that are configured such that any transaction that is not acknowledged by a non-responding one of the at least two central servers is sent directly from the synchronization engine of a responding one of the at least two central servers to the synchronization engine of the non-responding central server. For Nguyen to teach this structure and functionality, Nguyen would have to teach a plurality of host servers 328, and each of the plurality of host servers 328 would have to be taught to include a synchronization engine configured as claimed; that is, configured such that any transaction that is not acknowledged by a non-responding one of the at least two central servers is sent directly from the synchronization engine of a responding one of the at least two central servers to the synchronization engine of the non-responding central server. Nguyen, however, whether considered alone or in combination with Mockapetris, does not teach or suggest this structure or functionality. Nguyen mentions in one place (paragraph [088] that there may be one **or more** <u>host servers</u> (≠ **host servers**), but never discloses any communications **between** such one or more host servers, and much less discloses or suggests any method or functionality that would enable one host server 328 to directly send, to another (non-responding) host server 328 a transaction received from a gaming machine. Such is simply not within the purview of Nguyen.

It is noted that Nguyen teaches that the gaming machines may also function as servers. However, even in such a configuration, the combination fails. Indeed, Nguyen at paragraph [0043]

states that the DCU "may act as a local interim server" and may "store the data received from the gaming machines ... until such time as a transmission path to the host server 328 is restored and data can be transmitted." In Nguyen, that store-and-forward functionality is invoked only when the communication paths between the DCU and the host server is severed or otherwise unavailable. However, according to the embodiment of claim 79, the synchronization engine of the **responding** central server directly sends the transaction to the synchronization engine of the **non-responding** central server, which would not be possible if the communication paths therebetween were severed or unavailable. That is, if at least one of the communication paths in Nguyen were available; the store-and-forward functionality of the DCU 324 would not be invoked, as explicitly taught in paragraph [0043]. Note that the claim necessarily requires that the communication path(s) between respective central servers be available, even though one or more central servers are non-responding; meaning that the non-responding central server(s) has/have not acknowledged receipt of the transaction. Nguyen (whether considered alone or in combination with Mockapetris) <u>does not even consider this eventuality</u> (communication path(s) available, but host server 328 does not acknowledge receipt of transaction packet from gaming machine and/or DCR 324). As such the applied combination fails to teach or to suggest the embodiment defined by claim 79.

It is worthy of note that neither Mockapetris or Nguyen teach or suggest (whether each is considered alone or in combination with the other) that a plurality of target hosts (Mockapetris's language) or host servers (Nguyen's language) communicate with one another, and much less include a synchronization engine ... "such that any transaction that is not acknowledged by a non-responding one of the at least two central servers is sent directly from the synchronization engine of a responding one of the at least two central servers to the synchronization engine of the non-responding central server," as claimed herein.

The express purpose of Nguyen's enhanced DCUs is to provide "mediation services between gaming machines and associated servers" (paragraph [0024]), "monitoring communications between a plurality of gaming machines and one or more host servers" (paragraph [0028]) and to "mirror gaming information" from the host servers (paragraph [0029]). The Office will not find any teaching in Nguyen of one of Nguyen's host servers synchronizing with another one of Nguyen's host servers, as required by the claims. It is that simple. The applied combination, therefore, does not teach or suggest the claimed embodiments of independent claim 79 and its dependent claims. Reconsideration and withdrawal of the 35 U.S.C. §103(a) rejections applied to the claim 79 and its dependent claims are, therefore, respectfully requested.
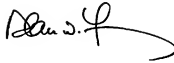
The arguments above are equally applicable to method claim 109. As such, they are incorporated herein by reference, as if repeated here in full. Reconsideration and withdrawal of the 35 U.S.C. §103(a) rejection applied to claim 109 is, therefore, respectfully requested.

Lastly, the present amendment is believed to be properly enterable *after* final rejection for the following reasons. At the outset, the present amendment places this case in condition for allowance, as the cited references are not believed to teach or to suggest the recited method steps and structure of the independent claims, as developed above. Moreover, the nature of the amendments to the independent claims of the present application is such that no further search is required. Indeed, the sole amendment to the claims is drawn to returning, by each of the at least two central servers, **a single** outbound game payload to the gaming machine upon receipt of the inbound game payload, as opposed to the originally-recited "an outbound game payload." The scope of the claims, therefore, has not changed substantially, as a single outbound game payload was the intended meaning of the originally-filed claims and the present amendments only clarify the originally-intended meaning. Thus, all of the steps and all of the structure recited in the

amended independents claim has already been **fully searched and considered** by the Examiner. Any consideration required by the amendments to the independent claims could, therefore, hardly be called undue. Of course, the Examiner may wish to perform an updated search prior to allowing this application. However, such a search is not necessitated by the _nature_ of the amendments to the independent claims presented herewith. Indeed, any further consideration that might be required is believed to be _de minimis,_ as the present amendment is believed to place this application **in condition for allowance without consideration of any new issues and/or subject matter**. Therefore, the amendments to the independent claims are believed to be such as to merit allowance of this application without requiring Applicants to expend additional fees to refile and re-prosecute this application through the filing of an RCE.

Applicants' attorney believes that the present application is now in condition for allowance and passage to issue. If any unresolved issues remain, the Examiner is respectfully invited to contact the undersigned attorney of record at the telephone number indicated below, and whatever is required will be done at once.

Respectfully submitted,

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